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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,176	11/13/2001	David Edward Williams	CACS-0017	6295

7590

07/03/2002

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EXAMINER

POLITZER, JAY L

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 07/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
**09/786,176**

Applicant(s)  
**Williams et al**

Examiner  
**Jay Politzer**

Art Unit  
**2856**



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jan 2, 2002
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims <sup>3</sup>

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some\* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 8, 10 6) ☐ Other: \_\_\_\_\_

Serial Number: 09,786,176

Art Unit: 2856

Title: SEMICONDUCTOR GAS SENSING

Filed: 11/13/01

Inventor(s): Williams et al

Attorney(s): Lucci

### ***DETAILED ACTION***

#### **REJECTIONS UNDER 35 U.S.C. § 112:**

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-<sup>3</sup>~~2~~ are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. For example:

Regarding Claim 1; though it is made clear in the specification, the claim must also make clear that, despite the overlapping ranges, the first temperature is always higher than the second temperature.

#### **REJECTIONS OVER PRIOR ART UNDER 35 U.S.C. § 103:**

3. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

"A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this

- section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person."
4. Claims 1<sup>+3</sup>~~2~~ are rejected under 35 U.S.C. § 103 as being unpatentable over Williams et al '662, hereinafter Williams, in view of Baker et al, hereinafter Baker.

Regarding Claim 1; in the abstract, Williams teaches a semiconductor sensor that changes resistance in response to ozone. Williams teaches pulsed operation of the sensor in Fig 8, but fails to teach returning to a working temperature at the conclusion of the pulse. At Col 14, Li 20-27, Baker teaches regeneration at a temperature 450°C followed by a return to working temperatures. Baker teaches a working temperature range of 200°C to 500°C at Col 4, Li 13-14. It would have been obvious to one of ordinary skill in the art at the time of the invention to operate the Williams' sensor using Baker's teaching because Baker teaches that this will adequately regenerate the sensor.

Regarding Claim 3; in the figures, Williams analyses the resistance as a function of time.

**INQUIRIES:**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Jay L. Politzer whose telephone number is (703) 305-4930 and whose facsimile number is (703) 308-7382


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6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Hezron E. Williams, can be reached at (703) 305-4705.
7. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4900.

jlp 6/27/02

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DANIEL S. LARKIN  
PRIMARY EXAMINER